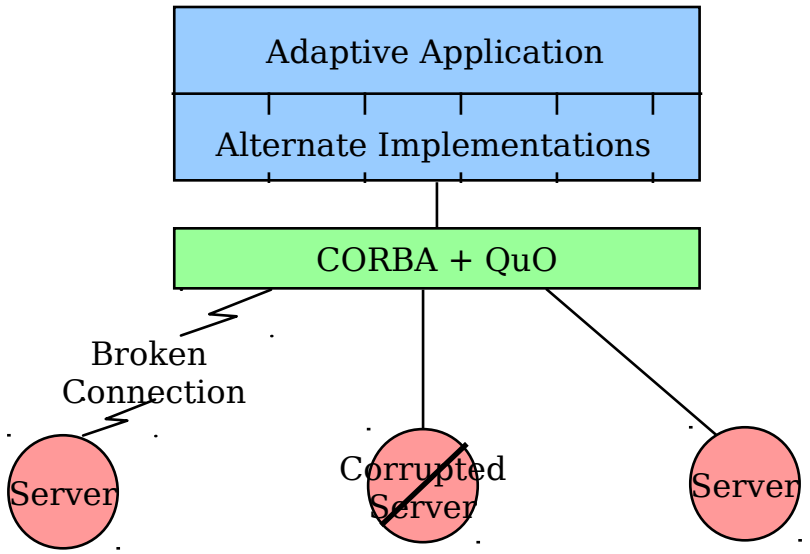
An Open Implementation Toolkit for Creating Adaptable Distributed Applications



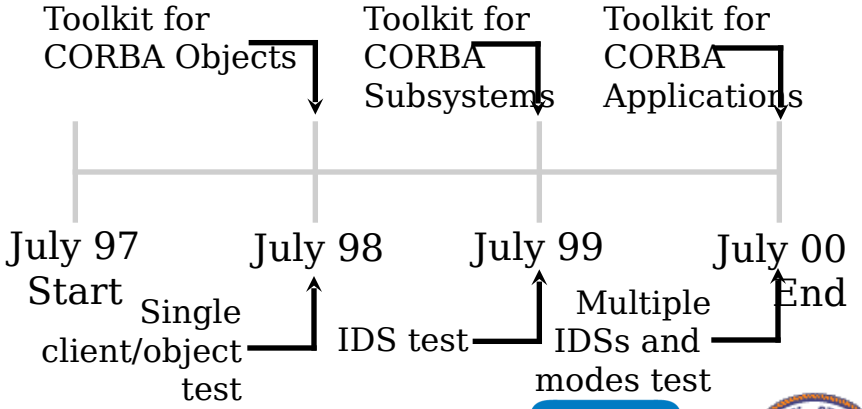
New Ideas

- Support multiple implementations with different characteristics for subsystems
- Support specification of acceptable operating ranges and configurations under which each is valid (in QuO's QDL language)
- Recognize and notify when a subsystem is operating outside its acceptable range
- Provide runtime measurement of selective system behavior to help determine the cause of a malfunction or attack
- Select an alternate implementation based upon the configuration information to avoid the problem

Impact

- Enable the building of more survivable, attack-resistant, adaptable systems
- Increased predictability for critical distributed systems in uncertain wide-area environments
- Support for intrusion detection and containment research increasing the security and reliability of distributed military, financial, and other critical systems

Schedule



Dr. Richard Schantz, Dr. Joseph Loyall, Prof. William Sanders

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